

Guidance sheet for buying a digital organ

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Introduction

Buying an organ is an important undertaking. It may be for your own practice, for a church, school or institution. To find the right organ that will serve its purpose for the years to come, you need to think things through carefully. A clear vision of your expectations will be very helpful in discussing your project with the chosen organ company. This guidance sheet is designed to help you to shape that vision.

With Eminent UK enjoying a 30-year history, we feel some open and honest advice about digital organs will help you to make an informed decision. This advice is based upon solid facts about what a digital organ can do and how that might be right for your environment. We don't intend to criticize other firms or products; every company is working hard to produce something they believe to be a quality product.

Some official advice ridicules and disparages digital organs. However, electronic organs have changed beyond recognition in the last 90 years of their existence in terms of design and capability. In the 1930s, several manufacturers developed electronic organs to imitate the function and sound of pipe organs. From the 1950s–1970s, electronic organs were analogue. The digital organ as we know it today developed from the 1970s. By the 1990s quality of sound was possible and affordable.

Advice about digital organs can be inconsistent. Always check statements carefully about quality of sound and which sound generation is being referenced. You should also bear in mind that digital organs (as opposed to analogue) have been around for over 50 years. Check dates of documents: a statement made in the 1990s may include information which is outdated, or may even refer to a different system of sound generation. It is also worth mentioning that organs installed in the 1990s are the workhorse of many a parish church and are serving their purpose well.

The British organ sound

In the United Kingdom, there is an interesting history of organ construction, performers and repertoire for the instrument. This history has helped to shape many fine instruments.

For 30 years, Eminent UK (previously Cathedral Organs) have represented Eminent in the United Kingdom (including the Channel Islands) and Ireland. The company has installed hundreds of digital organs in churches, chapels, schools, concert venues and homes throughout the country. Whilst the instruments are built in Holland, their design and specification has always been driven by the requirements of our British customers. As a British company, Eminent UK have been instrumental in analysing, designing and building organs which offer a fine British organ sound.

Things to consider if you are buying for a church

Music is central to worship because it enables congregations to celebrate liturgy. Finding an instrument appropriate to the liturgical needs and the size of your building is crucial. The right organ should be well-designed and relate sympathetically to the architecture. You must also comply with civil law regarding listed buildings and other diocesan regulations. As well as finding the best value for money, you need to make sure that you are employing qualified workmen.

Replacing any organ, pipe or digital, needs the permission of church officials. Do not assume that replacing an old, worn-out digital organ with a new like-for-like replacement can be done without appropriate checks. Every church is different in this respect and can vary from diocese to diocese. Always check with a cleric, secretary or chair of a church council before making plans.

It has been said many times that an organ is the single most valuable item in a church. Regular care and correcting faults as they occur is the most cost-effective way of maintaining the instrument. Make sure that the company you choose offers a maintenance service that you can rely on. Although digital organs do not need regular maintenance, you need to know that should something go wrong, it can be fixed quickly and without fuss.

The lifespan of a digital organ

Most of our customers want to know how long a digital organ will last. Much of the advice given, particularly on the internet, is not particularly helpful. Some examples go as far as to list the number of years. Whilst some advice is good, there are examples of half-truth, innuendo and in some cases, inaccuracies.

So many churches across the UK house pipe organs dating from the latter half of the nineteenth century. Small pipe organ builders exploited the huge demand for pipe organs and could function as businesses offering wages comparable with the larger and more established firms. Many of these robust organs are still being used today but unless they have been well-maintained, these stalwart instruments are beginning to fail. So 150 years on, they have to be rebuilt.

There is no reason why a good digital organ should not last as long as a good pipe organ. It is simply not true that a digital organ will only last a few decades. Both pipe and digital organs need to have their worn-out parts replaced. During the lifespan of pipe organs, a clean and overhaul of the pipes every 25 years and renewal of the blowers about every 50 years should be factored in. This costly work needs to be considered when calculating the expenditure for future generations.

Eminent organs are robust and built to last. A solid wood console will naturally be more durable than wood veneer – but we do produce a range of instruments to suit all budgets. The electrical components we use are not proprietary – in other words we do not build instruments that only we can service. But of course, we are happy to do so.

Eminent organs do not need regular maintenance. All our new instruments come with a ten-year warranty as standard. Should any faults occur, they will be fixed at no extra cost to you. After the warranty period, we offer a comprehensive service to repair the instrument if required.

Unique benefits of a digital organ

A digital instrument allows for additional features such as the ability to transpose, record or play with full organ effect without pedals. Recording for example is an excellent feature because it can help churches with limited resources. Of course, every church would like an organist but 'live recorded' hymns will still prove to be more musical than a digital hymnal.

Understanding Additive Synthesis

There are two ways of producing a digital organ sound: Real Time Sampling and Additive Synthesis. Real Time Sampling is a method whereby recordings of pipes are stored and replayed. These recordings are the root basis for the *replication* of organ sound. Additive Synthesis is a sound *generation* technique that creates timbre by adding sine waves together. Additive Synthesis is the sound generation system used by Eminent.

How we do this

We start with a sound recording and analyse the component parts. These parts are stored separately (typically 62 components) which can be accessed and manipulated at a later stage. What this means is that we physically model the speaking voice of the organ without using an actual sample as a guide or root basis. This is particularly useful with complex stops such as mixtures because we can manipulate all the components of that mixture. So when we say that we 'generate rather than replicate organ sound', this is factually correct.

When Eminent deliver and install an organ, we typically spend about half a day voicing it. Our software pulls up hundreds of components which is then modelled for the acoustic where the organ is situated. This is an electronic version of what is done when voicing a pipe organ. We are completely open about this process and we always invite organists and musicians to take part/be present. We would never exclude anyone from a voicing visit. We believe it is the most powerful tool and something we feel passionate about.

So if you like your Diapasons thin, fat, quiet or loud, it's not a problem for us. We always try to create a well-thought out British organ sound, but this can be voiced exactly to your taste.

Speakers

The actual sound of a digital organ is produced with speakers. They are very important, and must be selected carefully. The voicing process is very detailed, but the tool that carries this to the ears of the listener is the speakers. Don't underestimate the difference that quality speakers will make to the equation.

When a potential customer gets in touch, we make an appointment to visit the venue. During the visit, the inevitable question is usually asked: 'so how much is this going to cost – even if you can only give us a rough figure'. We cannot give you an immediate answer because the number of channels and computing power needed is something that must be worked out. Quite often we take away information about a venue and meet up with the team to discuss that venue in terms of acoustic. We take into consideration the physical space needed and the aesthetic qualities of an installation. Typically, we should be able to get a well-considered quotation out to you within one working week.

For a small installation, a modest amount of amplification may be enough, and the cost will therefore be relatively low. If you are looking to install an organ in a large church, the amplification may cost as much as the console, perhaps more. It depends on what is

required musically. Imagine buying a serious sound system for your home and attaching the cheapest available speakers. However good the system, you would not get a musical sound.

Visiting our showrooms

If you have read this far, you are probably serious about buying an Eminent organ. The next step is that you may want to visit a showroom to play lots of models. By all means come to see what is on offer, but remember that all our instruments are built to order. Eminent UK do not sell mass produced organs. We usually have a selection in the showroom to demonstrate. These instruments will have a relatively standard specification so you can get an idea of the aesthetic and general sound quality of our organs. It is then up to you to specify and build the organ you want.

We have showrooms in London, Durham and Somerset so we are probably closer than you think. And of course, we are happy to put you in touch with satisfied customers so you can get a first-hand opinion on our products and services.

Some points to remember when considering the purchase of a digital organ:

1. Be careful to separate technical from musical (i.e. do you need all the features of a glamorous console?)
2. Ask about the dimensions and weight of the console, amplifiers and speakers. If the destination is a balcony in a church, specialist lifting gear may be needed.
3. If you are trying out different brands, try playing the same pieces/passages of music and make notes as you go about what you liked and what you think could be improved.